REMARKS

Independent claim 1 has been amended to include the limitations previously recited in dependent claim 2, now cancelled.

New independent claim 72 includes the limitations recited in dependent claim 71 and in independent claim 1 in its unamended form.

Minor amendments to claims 1, 3-5, and 71 have been made to address informalities noted by the Examiner.

With these amendments, claims 1, 3-7, 9-18, and 70-72 are pending, of which claims 1 and 72 are independent.

35 U.S.C. § 103 Rejections

Independent claim 1

Claims 1-7, 9-18, 70, and 71 were rejected as being unpatentable over Riley (WO 01/08169) in view of Jin ("Superconducting properties of $YBa_2Cu_3O_{7-\delta}$ with partial rare earth substitution"). We submit, however, that neither Riley nor Jin, alone or in any proper combination, discloses or suggests a precursor solution comprising, among other components, "a dopant component comprising a dopant metal, wherein the dopant metal partially replaces the rare earth of the rare earth/alkaline earth metal/transition metal oxide in the precursor solution, wherein the dopant component comprises sufficient dopant metal to replace up to 50 atomic percent of the rare earth metal of the rare earth/alkaline earth metal/transition metal oxide," as recited in amended independent claim 1.

The Examiner concedes that Riley does not disclose a dopant metal that partially replaces the rare earth in the precursor solution, but relies on Jin to teach this feature. Jin appears to describe "superconducting properties of the $YBa_2Cu_3O_{7-\delta}$ compound with partial rare earth substitution" (Abstract). However, none of Jin's components comprises "sufficient dopant metal to replace up to 50 atomic percent of the rare earth metal," as required by claim 1. Rather, Jin describes only situations of 20% partial substitution of the rare earth elements (Abstract; p. 76, col. 1). Furthermore, Jin gives no reason to

suggest that partial substitution at a level greater than 20% would be desirable in any way.

For at least this reason, we submit that amended claim 1 is patentable over Riley and Jin, alone or in any proper combination.

Since claims 3-7, 9-18, 70, and 71 depend from claim 1, these claims are patentable for at least the same reason claim 1 is patentable.

Claims 12-17 were also rejected as being unpatentable over Riley in view of Jin and Weinstein (U.S. 6,869,915). Claims 12-17 depend from claim 1, which is patentable over Riley and Jin as discussed above. Weinstein does not remedy the deficiencies of Riley and Jin. Thus, claims 12-17 are patentable for at least the same reason claim 1 is patentable.

Claims 12 and 15 were also rejected as being unpatentable over Riley in view of Jin and Wiesmann (U.S. 2003/0050195). Claims 12 and 15 depend from claim 1, which is patentable over Riley and Jin as discussed above. Wieismann does not remedy the deficiencies of Riley and Jin. Thus, claims 12 and 15 are patentable for at least the same reason claim 1 is patentable.

Claim 18 was also rejected as being unpatentable over Riley in view of Jin and Feenstra (U.S. 5,972,847). Claim 18 depends from claim 1, which is patentable over Riley and Jin as discussed above. Feenstra does not remedy the deficiencies of Riley and Jin. Thus, claim 18 is patentable for at least the same reason claim 1 is patentable.

Independent claim 72

New independent claim 72 includes the limitations of dependent claim 71, which was rejected by the Examiner as unpatentable over Riley in view of Jin. However, we submit that neither Riley nor Jin discloses or suggests a precursor solution comprising, among other components, "a dopant component comprising a first dopant metal and a second dopant metal, wherein the first dopant metal partially replaces the rare earth of the rare earth/alkaline earth metal/transition metal oxide in the precursor solution, and wherein the second dopant metal partially replaces the alkaline earth metal of the rare

earth/alkaline earth metal/transition metal oxide in the precursor solution," as recited in claim 72.

As discussed above, Jin may describe a partial substitution of rare earth elements in a superconductor. However, Jin makes no mention of a second dopant metal that partially replaces the alkaline earth metal. While Jin states that "the 123 type compound can be formed with most of the rare earth (RE) elements" (p. 75, col. 1), there is no suggestion that Jin performed or even considered a second dopant metal for partial replacement of the alkaline earth metal.

For at least this reason, new claim 72 is patentable over Riley and Jin, alone or in any proper combination.

Conclusion

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

No fees are believed to be due. Please apply any other charges or credits to Deposit Account No. 50-4189, referencing Attorney Docket No. 30020-301001.

Respectfully submitted,

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